Claims

We claim:

1. A method for creating a prototype for performing a process to solve a problem, the method comprising:

displaying information indicating a plurality of problems;

receiving user input specifying a problem from the plurality of problems; and

automatically creating a prototype including a plurality of elements in response to the specified problem, wherein the plurality of elements are operable to interact in order to perform a process that solves the specified problem.

2. The method of claim 1,

wherein said automatically creating the prototype comprises using previously stored information specifying the elements to include in the prototype.

3. The method of claim 2, wherein said automatically creating includes selecting the prototype from a plurality of stored prototypes, wherein the selected prototype corresponds to the specified problem.

4. The method of claim 1,

wherein each element included in the prototype is a step representing a function.

5. The method of claim 4, wherein an ordering is associated with the steps in the prototype, the method further comprising:

performing the functions in the order of their respective corresponding steps in order to perform the process that solves the problem.

6. The method of claim 1, further comprising:

receiving user input to customize the process that is performed; and

modifying the prototype in response to the user input;

wherein said modifying the prototype comprises one or more of:

modifying an element in the prototype;

including another element in the prototype;

removing an element from the prototype.

7. The method of claim 1, further comprising:

displaying help information regarding the specified problem;

wherein the help information includes information explaining the process that is performed in order to solve the specified problem.

8. The method of claim 1, further comprising:

receiving information regarding an additional problem to indicate in the plurality of problems, wherein the information specifies a plurality of elements to include in a prototype in response to a user specifying the additional problem;

displaying information indicating the additional problem along with the other problems in the plurality of problems.

9. The method of claim 8,

wherein said receiving information regarding the additional problem comprises automatically receiving the information, without user input.

10. The method of claim 8,

wherein said receiving information regarding the additional problem comprises:

connecting to a computer server;

downloading the information from the computer server.

11. The method of claim 1, further comprising:

programmatically generating a program executable to implement the process performed by the prototype.

12. The method of claim 11,

wherein the program is a graphical program.

13. The method of claim 1,

wherein the plurality of problems comprise one or more problems associated with at least one of the disciplines from the group consisting of:

image processing, machine vision, image analysis, robotics, process control, industrial automation, test and measurement, simulation, workflow processes, and robotics.

14. A method for extending the functionality of a prototyping environment application, the method comprising:

installing a prototyping environment application operable to automatically create a plurality of prototypes, wherein each of the plurality of prototypes is configured to perform a process to solve a particular problem;

receiving solution information after said installing, wherein the solution information includes information enabling the prototyping environment application to automatically create a new prototype;

providing user input requesting the prototyping environment application to automatically create the new prototype using the solution information, wherein the new prototype is configured to perform a process to solve a new problem.

15. The method of claim 14, wherein the prototyping environment application is distributed by a first software developer, the method further comprising:

transferring specification information from the first software developer to a second software developer, wherein the specification information specifies how to construct solution information for the prototyping environment application;

constructing solution information according to the specification information in response to user input from the second software developer, wherein the solution information enables the prototyping environment application to automatically create a new prototype;

wherein said receiving solution information comprises receiving the solution information constructed by the second software developer.

16. The method of claim 14, wherein the prototyping environment application is distributed by a software developer, the method further comprising:

providing information indicating a new problem to the software developer;

requesting the software developer to provide solution information enabling the prototyping environment application to automatically create a new prototype configured to perform a process to solve the new problem;

receiving solution information from the software developer enabling the prototyping environment application to automatically create a new prototype configured to perform a process to solve the new problem.

17. The method of claim 16, further comprising:

receiving help information from the software developer explaining the process that is performed in order to solve the new problem.

18. A method for creating an image processing prototype for performing a process to solve an image processing problem, the method comprising:

displaying information indicating a plurality of image processing problems;

receiving user input specifying an image processing problem from the plurality of image processing problems; and

automatically including a plurality of elements in the image processing prototype in response to the specified image processing problem, wherein the plurality of elements are operable to interact in order to perform a process that solves the specified image processing problem.

19. A system for creating a prototype for performing a process to solve a problem, the system comprising:

a processor;

a memory coupled to the processor;

a prototyping environment application stored in the memory, wherein the prototyping environment application is operable to:

display information indicating a plurality of problems;

receive user input specifying a problem from the plurality of problems; and

automatically create a prototype including a plurality of elements in response to the specified problem, wherein the plurality of elements are operable to interact in order to perform a process that solves the specified problem.

20. The system of claim 18, wherein the prototyping environment application is further operable to:

receive information regarding an additional problem to indicate in the plurality of problems, wherein the information specifies a plurality of elements to include in a prototype in response to a user specifying the additional problem;

display information indicating the additional problem along with the other problems in the plurality of problems.

21. The system of claim 20, wherein the memory and the processor are associated with a first computer system, the system further comprising:

a second computer system connected to the first computer system via a network;

wherein said receiving information regarding the additional problem comprises:

establishing a network connection with the second computer system;

downloading the information via the network connection.

22. A memory medium comprising program instructions executable to:

display information indicating a plurality of problems;

receive user input specifying a problem from the plurality of problems; and

automatically create a prototype including a plurality of elements in response to the specified problem, wherein the plurality of elements are operable to interact in order to perform a process that solves the specified problem.

23. The memory medium of claim 22,

wherein said creating the prototype comprises using previously stored information specifying the elements to include in the prototype.

24. The memory medium of claim 22,

wherein each element included in the prototype is a step representing a function.

25. The memory medium of claim 24, wherein an ordering is associated with the steps in the prototype, the memory medium further comprising program instructions executable to:

perform the functions in the order of their respective corresponding steps in order to perform the process that solves the problem.

26. The memory medium of claim 22, further comprising program instructions executable to:

receive information regarding an additional problem to indicate in the plurality of problems, wherein the information specifies a plurality of elements to include in a prototype in response to a user specifying the additional problem;

display information indicating the additional problem along with the other problems in the plurality of problems.

27. A system for creating a prototype for performing a process to solve a problem, the system comprising:

a client computer system, wherein the client computer system comprises:

a processor;

a memory coupled to the processor;

a prototyping environment application stored in the memory, wherein the prototyping environment application is operable to:

display information indicating a plurality of problems;

receive user input specifying a problem from the plurality of problems; and

select a first prototype from a plurality of possible prototypes, wherein the first prototype implements a solution to the specified problem;

a server computer system, wherein the server computer system stores a plurality of prototypes;

wherein the client computer system is operable to obtain prototypes from the server computer system.

28. The system of claim 27,

wherein the server computer system is operable to receive and store prototypes from a plurality of client computer systems.